

Review article

Emotions as parts of the inner lives of physicians in the modern clinical context

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Abstract

Aim: As physicians often struggle with devastating illness and loss, they often experience more or less intense emotions arising from the care of patients. As yet, however, little attention has been given to physicians' emotional reactions. This paper aims at exploring the emotional reactions of physicians in the workplace as well as the impact of their emotions on their professionalism and personal well-being.

Method: A comprehensive narrative review of the currently available literature related to the topic of interest has been conducted placing considerable emphasis on the recently published sources.

Results: Grief, sense of failure, frustration, feelings of powerlessness, death anxiety, self-blame or guilt, and a feeling of obligation to save the patient are among the most common emotions that physicians experience in the workplace. Importantly, while the relationship between physicians' emotions and burnout, moral distress, medical communication, empathy, shared decision making and compassion fatigue seems to be to a greater or lesser extent correlative, it remains unclear in details. It is not easy for physicians to be engaged in identifying and controlling their emotional reactions in the workplace. Emotion recognition and regulation is of great importance for protecting physician's professionalism as well as professional and personal well-being.

Conclusion: The physicians' emotional reactions and the consequences of their emotions in the workplace is a complex and multifactorial topic that requires further exploration. Physicians' emotional state may profoundly impact on the quality of their well-being and care delivery. Further education should be designed and strategies should be developed to increase physicians' ability to recognize and manage to cope with their unexamined emotional reactions.

Keywords: Emotions; Physicians, Burnout; Decision making; Moral distress; Post-traumatic syndrome; Compassion fatigue

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Introduction

Not only patients but also physicians have strong emotions that may profoundly affect their well-being and how they care for patients. Sometimes physician emotional reactions remain unacknowledged despite the fact that these reactions are often a significant aspect of patient care. In recent years, however, physician emotional reactions have received more attention in academic literature as compared to the past. Physicians (especially those practicing disciplines of medicine such as oncology or intensive care) have in their daily work to deal with the emotions of their patients but also with their own emotions e.g. emotions related to witness a dying process, communicate bad news, interact with people struggling with bereavement, grief and loss immediately following death of their beloved one. Martin et al. found that most clinicians, regardless of experience and specialty, were of the opinion that their emotions influence the quality of their care delivery. (Martin et al., 2015). Emotional reactions may profoundly influence how physicians approach their decisions or the way they communicate with patients, including those seriously ill. For instance, physicians' death anxiety may lead to being inclined to dodge end-of-life conversations, avoid discussions with family and relatives and prefer life-prolonging treatments. (Meier, Back and Morrison, 2001; Draper et al., 2019). Among the most common physician's emotions are grief, a sense of failure, self-blame or guilt, and a feeling of obligation to save the patient (Meier, Back and Morrison, 2001).

The influence of emotions on clinical decision-making

Emotions and cognitive procedure of decision-making are strictly interwoven. Both values and emotions

underpin every aspect of a decision-making process (Charland, 1998; Hermann et al., 2016).

Emotional influences may affect not only the decision process but also post-decision experience 'as a function of uncertainty' (Bandyopadhyay et al., 2013).

A certain degree (not lack or excess) of emotional involvement seems to be essential for a person to appreciate (understand in more experiential sense) the external and internal to her world (Charland, 1998). Emotions often reflect a decider's important underlying values that are strictly and stably allied to their narrative identity and hence, are keys to decision making.

Emotions seem to influence the way that options and the surrounding information are interpreted and used (Mazzocco et al., 2019). Emotions may interact with situational factors to improve or degrade health-related decisions (Ferrer et al., 2016). Ferrer and Mendes (2018) put it best in saying that 'the relative dearth of research focused on how affective states contribute to and influence health decision-making and behaviour is an important gap in the literature.'

In the clinical context, perceived emotional threats affect physician cognition and may lead to responses such as rumination or thought looping in unknown ways (Childers and Arnold, 2019). Emotions may affect physician's clinical decisions on a level that is not entirely conscious (Kligyte et al., 2013; Kozłowski et al., 2017).

Negative emotions may capture part of the physician's cognitive resources (Pruthi and Goel, 2014; Kremer et al., 2019) and have a negative impact on physician's decision making capacity (Pruthi and Goel, 2014).

Emotions can be an influential factor in shared decisions (that lie at the center of patient-centered health care), and

particularly so in oncological decision-making, which is a 'complex and high-stakes' situation. Treffers and Putora have shown that emotions may influence in multiple ways before, during, and after a shared decision making, during which patients' and physicians' emotions 'interact and spill over' (Treffers and Putora, 2020).

The expression (or suppression) of physician emotions

Physicians work in settings in which rationality is prioritized. However, while health decisions often take place in emotionally-laden contexts, the traditional medical culture imposes restrictions on physicians' ability to acknowledge and express emotions. For instance, 'surgeons must focus on the technical aspects of their work rather than their feelings about the procedure.' (Childers and Arnold, 2019). Indeed, physicians (especially surgeons) often have no alternative but to regulate their emotions so that they can practice (i.e. operate) effectively or to comply with organizationally desired rules. Not surprisingly, it would be impossible for a physician to function if they had to think of their mortality and grieve every time they saw a dying patient. Taken to extremes, this professional suppressing of emotion may lead to a self-perception of invulnerability. Then, when physicians encounter situations that remind of their vulnerability, they do not have the skills to respond to their own reactions (Arnold 1998).

However, physicians, particularly in specialties such as critical care, encounter large amounts of human suffering (in terms of the quality and quantity of their exposure to it), including death. Death may be a routine part of the workday. It is worth noting that not all emotional reactions experienced in the context of caring for dying patients are negative or difficult (Zambrano et al., 2014; Kaplan, 2017).

The many examples that are provided often suggest that when a physician cries with a patient, they have a common history. e.g., because of a similar personal experience... (Janssens, Sweerts and Vingerhoets, 2019). Among the most common reasons why physicians cry are delivering bad news (Barth et al., 2004) and the death of a patient (Barth et al., 2004; Wagner et al., 1997). Janssens, Sweerts and Vingerhoets concluded that 'physicians cry relatively often in the workplace, though considerably less in the presence of a patient', and they 'report a relatively strong tendency to suppress their emotions' (Janssens, Sweerts and Vingerhoets, 2019).

Different opinions

There is a broad variety of opinions, both among physicians (Janssens, Sweerts and Vingerhoets, 2019) and patients (and general public, Omroep Max, 2015) in how they perceive a crying physician.

While some patients prefer an empathic physician, others prefer a physicians who can professionally distance themselves from the suffering of the patients (Wible, 2015). the patient may view the physician as not professional or even worse, take on much of physician's emotional burden, namely, resulting in a 'role reversal' contributing negatively to a healing climate (Lerner, 2008; Sinclair, 2008; 't Lam et al., 2018).

Acceptability/professionality

Is expressing emotion a sign of humanity or demonstrates physicians' lack of control over themselves? Janssens, Sweerts and Vingerhoets state that there is 'mainly anecdotal evidence' that 'seems to suggest confusion and disagreement among physicians about if and how they should express their emotions...' (Janssens, Sweerts and Vingerhoets, 2019). It is true that 'even though humanity is the

cornerstone of medicine, depersonalisation has somehow crept into the physician-patient relationship and crying is considered incompatible with the image of a good physician, who is supposed to be strong' (Pruthi and Goel, 2014). Recently, Childers and Arnold (2019) put it best in saying that 'until recently, the model physician was assumed to be a paradigm of rationality in a sea of patient emotions.' In situations where crying can be considered as appropriate (i.e. feelings are similar as feeling grief at funerals), observers tend to react with understanding and empathy (Vingerhoets, 2013; Elsbach & Bechky, 2018). Otherwise, crying can easily be labeled as unprofessional (Janssens, Sweerts and Vingerhoets, 2019). Crying has a major impact on how they feel themselves as it can make physicians uncertain about their professionalism (Pruthi & Goel, 2014), feel anxious and shameful and behave professionally inappropriately (Brenner, 2014). During their education the attitudes of their teachers are said to be important (Angoff, 2001).

Physicians and physicians in training have different attitudes about expressing emotions

It emerged as a topic in the literature the different attitudes of physicians and medical interns towards the expression of emotions in the workplace. Sung et al. (2009) found that about half of the medical interns regarded it unprofessional to cry in the presence of a patient. Medical interns often view crying as sign of weakness and express the fear that it might have negative effects on their evaluation. (Angoff, 2001; Sung et al., 2009). While several studies have shown that approximately half of the participants reportedly ever cried in their work setting (Wagner et al., 1997; Angoff, 2001; Barth et al., 2004; Kukulu and

Keser, 2006; Sung et al., 2009; Janssens, Sweerts and Vingerhoets, 2019), a considerably greater variation has been reported on the topic when it comes to medical interns (Angoff, 2001; Barth et al., 2004; Kukulu and Keser, 2006; Sung et al., 2009; Wagner et al., 1997). As stated in the literature, several studies have shown that while the vast majority of physicians and medical interns expressed a greater need for more attention to their patient-related emotions in education and training, medical interns do not express a need for support to better deal with their patients-related emotions in the workplace. (Angoff, 2001; Kukulu and Keser, 2006; Sung et al., 2009). Janssens, Sweerts and Vingerhoets, gave the plausible explanation that medical interns struggle more with the expression of emotions, spending 'considerable, unhealthy effort to control their emotions' (Janssens, Sweerts and Vingerhoets, 2019).

Acting empathically produces emotional reactions

While lacking permission to acknowledge their own emotion, physicians deal regularly with intense patient and family emotion. This practice of acting empathically entails a kind of emotional labor, defined as "amplifying, suppressing or faking emotions to comply with organizationally desired rules and complex role demands" (Psilopanagioti et al., 2012). This practice of continually verbally mirroring and exploring emotion may produce emotional reaction and make it more difficult for physicians to perceive and validate their own feelings (Childers and Arnold, 2019).

Physicians often have a distinct personality type

Physicians are high achievers, with self-discipline, high levels of consciousness and responsibility (Stienen et al., 2018).

Physicians' role expectations and expectations for themselves may lead them to become hyper-responsible and self-critical. They may experience chronic or recurrent self-doubt or guilt when they feel they do not live up to their own standards (the 'imposter syndrome'). (La Donna et al., 2018). More specifically, surgeons make decision quickly, are action-oriented, risk-takers and self-confident. However, they may experience uncertainty and anxiety about the decision whether to operate. Following complications which result in death surgeons have been reported to experience post-traumatic stress, burnout and depression. (Marmon and Heiss, 2015). In that regard, it is important to note that surgeons describe surgical culture as lonely, with few mechanisms among their colleagues for support in emotionally difficult cases. (Orri et al., 2015).

Oncologists and emotions

As cancer is one of the leading causes of mortality and progress in oncology has led to increased survival, oncologists have much and long-lasting exposure to suffering, dying, and death, while the oncologist-patient relationships have become much stronger and long-lasting than ever (Plummer et al., 2016; Eide et al., 2003). The range of emotions an oncologist experiences is determined by a great number of factors. (Lazányi et al., 2011).

As oncologists struggle daily with devastating illness and loss, they often experience grief and a sense of failure (Laor-Maayany et al., 2020). They may experience grief in response to the loss of a patient who has 'touched' them (Giddings, 2010) or, at least in part, from a sense of responsibility for the patient's life (Granek, Nakash et al., 2017; Granek et al., 2012; Granek et al., 2015; Granek et al., 2016; Granek,

Ben-David et al., 2017). Oncologists' grief may include self-doubt and guilt (Granek et al., 2012). Furthermore, oncologists may experience a sense of failure, especially when they hold on to unrealistic expectations of themselves (Lyckholm, 2001; Shanafelt, Adjei and Meyskens, 2003). Laor-Maayany et al. (2020) argue that their findings suggest that sense of failure and grief are predictors for both aspects of compassion fatigue: burnout syndrome and secondary traumatic stress. Compassion fatigue is composed of burnout and secondary traumatic stress (Stamm, 2010; H.S., 2010) and may increasingly lead to withdrawing (distancing) from dying patients to escape negative feelings (Granek et al., 2012). Indeed, oncologists are put at increased risk for developing compassion fatigue syndrome which, in turn, affects negatively their empathy towards their patients as well as their personal and professional well-being (Figley, 2002). Hayuni et al. argue that the empathy that oncologists feel toward their patients may put them at risk for compassion fatigue (Hayuni et al., 2019). Note however, that while prior studies argued for an association between compassion fatigue and exposure to suffering and death (Figley, 2002; Meyer et al., 2015), Laor-Maayany et al. found lack of association between compassion fatigue and exposure, giving the plausible explanation that not the high exposure itself but 'the subjective experience elicited by the exposure' is the crucial factor. In other words, the authors suggest that 'oncologists may need to be "touched" by the suffering and deaths they are exposed to in order to develop compassion fatigue symptoms' (Laor-Maayany et al., 2020). According to the authors, not simply exposure to suffering and death as it has been suggested before (Stamm, 2010) but internal emotional process may lead an

oncologist to compassion fatigue. Interestingly, the authors go deeper into the topic and argue that 'it is possible that oncologists develop compassion fatigue in response to their primary exposure to the trauma of repeated loss and perceived failure, and not only in response to their secondary exposure to suffering and death.' Moreover, the authors state that 'compassion fatigue aspects and compassion satisfaction...are not "two sides of the same coin" but two separate constructs that can coexist' (Laor-Maayany et al., 2020).

The role of emotions in patient-physician communication

As regards the role of emotions in patient-physician communication it is of great importance that cognition and emotion interact in patient-physician communication on level of which we are not often conscious (Childers and Arnold, 2019). This may entail important implications for clinical practice. For instance, feelings of guilt or anxiety about the emotions physicians may have to handle in the communication with their patient may lead them to avoid having conversations with a patient or patient's family. It is worth noting that in modern clinical ethics it is highlighted the changing role of physicians towards increased responsibility in empowering their patients and getting them to insight into their situation, and so cause them to be fully engaged into their own decision-making process that affects their health care. In a model of patient-centered care, physicians should serve as motivators that enable and encourage patients to play an active role and thus contribute and participate effectively in the shared decision-making processes that affect their health, with their own values, preferences and emotions. However, empowering patients has proven difficult in the clinical context.

Therefore, revised health-communication practices to improve patient understanding in the clinical encounter are recommended (Ubel et al., 2017). Moreover, it can be highlighted that as regards the topic of informed consent, scholars shift the focus from information towards communication and interactive relationships between patients and physicians (or other healthcare workers), implicating that more information does not mean better decision (Milligan and Jones, 2016).

The influence of emotions on learning process

The emotional reactions of physicians in training may negatively impact on their learning process. Their emotions may negatively affect the attention and perception of the physicians in training, and hence, the amount of knowledge gained as well as the time invested in learning process. Note, however, that the way by which negative emotions of physicians in training may affect their learning process remains unclear (Kremer et al., 2019).

Physician emotions and burnout syndrome

The relationship between physician emotions and burnout syndrome is a matter of great importance for both physicians and healthcare provision. It is arguably stated that repeated experience of difficult emotions without having the skills to deal with them, may lead to burnout syndrome (Whitehead 2014; Lathrop 2017). Jackson-Koku and Grime argue that emotion regulation is associated with burnout (Jackson-Koku and Grime, 2019).

Burnout that is characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment, can result in significantly negative consequences putting professionalism and patient

safety at risk (Panagioti et al., 2018; Jackson-Koku and Grime, 2019). Emotional exhaustion, cynicism, and feelings of inefficacy are the emotional effects of negative impact on the following six domains that constitute the established underlying drivers of burnout: Work Overload, Lack of Control, Insufficient Reward, Breakdown of Community, Absence of Fairness, Conflicting Values (Beth, 2020). Most interestingly, the ethicist Richard B. Gunderman put it best in saying: 'Burnout at its deepest level is not the result of some train wreck of examinations, long call shifts, or poor clinical evaluations. It is the sum total of hundreds and thousands of tiny betrayals of purpose, each one so minute that it hardly attracts notice' (Gunderman, 2014; Beth, 2020). In my opinion, the emotions that result from these 'tiny betrayals' should receive considerable attention as possible root causes of burnout. Dzeng and Wachter argue that 'moral distress and professional ethical dissonance are root causes of burnout' (Dzeng and Wachter, 2020). In response to moral distress, healthcare personnel may experience negative emotional consequences with frustration to be most frequently described in literature (Henrich et al., 2017). In my opinion, these negative emotional consequences might be thought of as possible root causes of burnout. Physicians' emotional reactions may include among others a sense of failure and frustration, feelings of powerlessness and grief, and may 'affect both the quality of medical care and the physician's own sense of well-being, since unexamined emotions may also lead to physician distress, disengagement, burnout, and poor judgment' (Meier, Back and Morrison, 2001). Blum, a psychoanalyst who has treated many physicians, writes that has repeatedly observed that the physicians' 'need to do good derives in part from

hidden guilt'. Importantly, he argues that 'the hidden guilt and need to do good can facilitate the practice of medicine, but they also make an important, and perhaps unrecognized, contribution to physicians' vulnerability to burnout, depression, and suicide.' (Blum, 2019). Note, however, that it is not clear whether expressing emotion may lead to an increased risk of burnout or may be linked to a decreased risk of the syndrome. As stated in literature there is strong disagreement regarding the relationship between physician's crying and burn out. While some authors suggest (and physicians believe) that crying may be a factor predisposing to the development of burnout (Kukulu & Keser, 2006; Lerner, 2008), others suggest that the inhibition of emotions may lead to an increased risk of burnout (Consedine, Magai and Bonanno, 2002; Larson & Yao, 2005). At any rate, as crying can be many things (i.e. a sign, a signal, or a symptom), it may affect the development of burnout in many and different ways (Vingerhoets & Bylsma, 2007). Further research is required to explore these 'different ways'. Lastly, it is a matter of uncommon (though noticeable) observation that a Spanish study observed association between high empathic engagement of health professionals and low burnout. Hence, it should come as no surprise to further explore whether improving empathy might help reduce burnout among healthcare professionals (Yuguero et al., 2017).

Emotion regulation

Given that strong emotions are central to providing care for seriously ill patients, future efforts should focus on helping physicians their emotions to inform the care. We should find ways to help physicians more effectively deal with their emotions (Shoodalter et al., 2018). Bioethicists should teach

physicians to be aware of their emotional reactions, focus more attention on their emotions and regulate emotions in healthy ways. These self-awareness skills include the ability to name emotions, accept their normalcy, and reflect on how these emotions affect their work (Shapiro, 2011). Among the specific tools to gain such skills are mentioned narrative medicine, reflective writing, mindfulness training, and formal debrief sessions with colleagues (Krasner et al., 2009; Eagle et al., 2012). In this perspective building an appropriate organizational environment would be helpful. Physicians should more effectively deal with their emotions. Furthermore, Jackson-Koku and Grime state that ‘emotion regulation is usually automatic but can be controlled through learnt strategies.’ Furthermore, the authors argue that ‘occupationally stressed individuals are less capable of down-regulating negative emotions’ (Jackson-Koku and Grime, 2019). It is noteworthy that over the last twenty years and in particular over the last couple of years multiple voices have been raised in the literature calling for action to be taken (i.e. designing education or developing strategies) to improve the physicians’ ability to overcome the negative consequences of their emotional reactions in the workplace. (Meier, Back and Morrison, 2001; Pruthi and Goel, 2014; Martin et al., 2015; Jackson-Koku and Grime, 2019; Draper et al., 2019; Hayuni et al., 2019; Treffers and Putora, 2020; Laor-Maayany et al., 2020).

Further education should be designed, and strategies should be developed to increase physicians' ability to recognize and manage to cope with their unexamined emotional reactions. We need to develop effective strategies to make good use of physicians’ emotional reactions in promoting better care. In that regard, physicians must learn to

recognize the ethical implications of their work and make clear arguments for the right course of action which, however, may be emotionally difficult.

Conclusion

Grief, sense of failure, frustration, feelings of powerlessness, death anxiety, self-blame or guilt, and a feeling of obligation to save the patient are among the most common emotions of physicians in the workplace. Importantly, while the relationship between physicians’ emotions in workplace and burnout, moral distress, medical communication, shared decision making and compassion fatigue seems to be to a greater or lesser extent correlative, it remains unclear in details. The physicians’ emotional reactions and the consequences of their emotions in the workplace is a complex and multifactorial topic that requires further exploration. Further research (empirical, in the field of psychology or neuroscience) is needed to provide a nuanced insight into the topic and allow us a better understanding on what are the physician emotional reactions and how these reactions affect their work. Emotion recognition and regulation is of great importance for protecting the quality of physician’s well-being and care delivery. In this perspective, further education should be designed, and effective strategies should be developed.

References

- Angoff, N. R. (2001). Crying in the curriculum. *JAMA*, 286(9), 1017–1018.
- Arnold, B. (1998). Larry. *Journal of Palliative Medicine* 1(1), 89-90.
- Bandyopadhyay, D., Pammi, V.S., and Srinivasan, N. (2013). Role of affect in decision making. *Prog Brain Res.* 202, 37-53.

- Barth, A., Egger, A., Hladschik-Kermer, B., and Kropiunigg, U. (2004). Tränen im Krankenhaus-Eine Bestandsaufnahme unter Ärzten, Pflegepersonal und Medizinstudenten. *Psychotherapie Psychosomatik Medizinische Psychologie*, 54(5), 194–197. [in German].
- Beth, NC Professionals Health Program, Healthcare Provider Burnout and COVID-19: A Battle on Two Fronts by Clark Gaither, MD, MRO, FAAFP. Posted at 10:59h in Burnout, Provider Wellness by Beth , 16 Apr 2020. Available from: <https://ncphp.org/healthcare-provider-burnout-and-covid-19-a-battle-on-two-fronts-by-clark-gaither-md-mro-faafp/> (last access: 23 Oct 2020).
- Blum, L.D. (2019). Physicians' Goodness and Guilt-Emotional Challenges of Practicing Medicine. *JAMA Intern Med.*, 179(5), 607-608.
- Brenner, A. M. (2014). Supervising the tearful trainee: Opportunities for professional growth and learning. *Academic Psychiatry*, 38(4), 497–501.
- Charland, L.C. (1998). Appreciation and emotion: theoretical reflections on the MacArthur treatment competence study. *Kennedy Inst. Ethics J.* 8, 359–377.
- Childers, J., and Arnold, B. (2019}. The Inner Lives of Doctors: Physician Emotion in the Care of the Seriously Ill. *Am J Bioeth.*, 19(12), 29-34.
- Consedine, N. S., Magai, C., and Bonanno, G. A. (2002). Moderators of the emotion inhibition–health relationship: A review and research agenda. *Review of General Psychology*, 6(2), 204–228.
- Draper, E.J., Hillen, M.A, Moors, M., Ket, J.C.F., van Laarhoven, H.W.M., and Henselmans, I. (2019). Relationship between physicians' death anxiety and medical communication and decision-making: A systematic review. *Patient Educ Couns.*, 102(2), 266-274.
- Dzeng, E. and Wachter, R.M. (2020). Ethics in Conflict: Moral Distress as a Root Cause of Burnout. *J Gen Intern Med.*, 35(2), 409-411.
- Eide, H., Graugaard, P., Holgersen, K., and Finset, A. (2003) Physician communication in different phases of a consultation at an oncology outpatient clinic related to patient satisfaction., 51, 259–266.
- Elsbach, K. D., and Bechky, B. A. (2018). How observers assess women who cry in professional work contexts. *Academy of Management Discoveries*, 4, 127–154.
- Ferrer, R., Klein, W., Lerner, J. S., Reyna, V. F., and Keltner, D. (in press). Emotions and Health Decision-Making: Extending the Appraisal Tendency Framework to Improve Health and Healthcare. In C. Roberto & I. Kawachi (Eds.), *Behavioral economics and public health*. New York, NY: Oxford University Press. 2016. pp: 101-133.
- Ferrer, R.A., and Mendes, W.B. (2018). Emotion, health decision making, and health behaviour, *Psychology & Health*, 33, 1, 1-16.
- Figley, C.R. (2002). Compassion fatigue: psychotherapists' chronic lack of self care. *J Clin Psychol.*, 58, 1433–1441.

- Giddings, G. (2010). The ties that bind: a reflection on physician grief. *Support Care Cancer.*, 18, 1355–1357.
- Granek, L., Ariad, S., Shapira, S., Bar-Sela, G., and Ben-David, M. (2016). Barriers and facilitators in coping with patient death in clinical oncology. *Support Care Cancer.*, 24, 4219–4227.
- Granek, L., Bartels, U., Scheinemann, K., Labrecque, M., and Barrera, M. (2015). Grief reactions and impact of patient death on pediatric oncologists. *Pediatr Blood Cancer.*, 62, 134–142.
- Granek, L., Ben-David, M., Shapira, S., Bar-Sela, G., and Ariad S. (2017). Grief symptoms and difficult patient loss for oncologists in response to patient death. *Psychooncology*, 26, 960–966.
- Granek, L., Nakash, O., Cohen, M., Ben-David, M., and Ariad, S. (2017). Oncologists' communication about end of life: the relationship among secondary traumatic stress, compassion satisfaction, and approach and avoidance communication. *Psychooncology.*, 26, 1980–1986.
- Granek, L., Tozer, R., Mazzotta, P., Ramjaun, A., and Krzyzanowska, M. (2012). Nature and impact of grief over patient loss on oncologists' personal and professional lives. *Arch Intern Med.*, 172, 964–966.
- Gunderman, R. For the young doctor about to burn out. *The Atlantic*. February 21, 2014. <https://www.theatlantic.com/health/archive/2014/02/for-the-young-doctor-about-to-burn-out/284005/>. (last access: 23 Oct 2020).
- Hayuni, G., Hasson-Ohayon, I., Goldzweig, G., Bar Sela, G., and Braun, M. (2019). Between empathy and grief: The mediating effect of compassion fatigue among oncologists. *Psychooncology.*, 28(12), 2344-2350.
- Henrich, N.J., Dodek, P.M., Gladstone, E., Alden, L., Keenan, S.P., Reynolds, S., and Rodney, P. (2017). Consequences of Moral Distress in the Intensive Care Unit: A Qualitative Study. *Am J Crit Care.*, 26(4), e48-e57.
- Hermann, H., Trachsel, M., Elger, B.S., and Biller-Andorno, N. (2016). Emotion and Value in the Evaluation of Medical Decision-Making Capacity: A Narrative Review of Arguments. *Front Psychol.* 7, 765.
- H. S. The ProQOL manual. 2010. pp. 1–29.
- Jackson-Koku, G., and Grime, P. (2019). Emotion regulation and burnout in doctors: a systematic review. *Occup Med (Lond).*, 69(1), 9-21. doi: 10.1093/occmed/kqz004. Erratum in: *Occup Med (Lond).*, 69(4), 304.
- Janssens, K.M.E., Sweerts, C., and Vingerhoets, A.J.J.M. (2019). The Physician's Tears: Experiences and Attitudes of Crying Among Physicians and Medical Interns. *J Clin Psychol Med Settings.*, 26(4), 411-420.
- Kaplan, L.I. (2017). The Greatest Gift: How a Patient's Death Taught Me to Be a Physician. *JAMA.*, 318(18), 1761-1762.
- Kligyte, V., Connelly, S., Thiel, C. and Devenport, L. (2013). The influence of anger, fear, and emotion regulation on ethical decision making. *Human Performance*, 26(4), 297-326.
- Kozlowski, D., Hutchinson, M., Hurley, J., Rowley, J., and Sutherland, J. (2017). The role of emotion in clinical decision making: an integrative

- literature review. *BMC Med Educ.*, 17(1), 255.
- Kremer, T., Mamede, S., van den Broek, W.W., Schmidt, H.G., Nunes, M.D.P.T., and Martins, M.A. (2019). Influence of negative emotions on residents' learning of scientific information: an experimental study. *Perspect Med Educ.*, 8(4), 209-215.
- Kukulu, K., and Keser, I. (2006). Medical and nursing students crying in hospital settings. *Journal of Nursing Education*, 45(10), 426.
- LaDonna, K.A., Ginsburg, S., and Watling, C. (2018). "Rising to the Level of Your Incompetence": What Physicians' Self-Assessment of Their Performance Reveals About the Imposter Syndrome in Medicine. *Acad Med.*, 93(5), 763-768.
- Laor-Maayany, R., Goldzweig, G., Hasson-Ohayon, I., Bar-Sela, G., Engler-Gross, A., and Braun, M. (2020). Compassion fatigue among oncologists: the role of grief, sense of failure, and exposure to suffering and death. *Support Care Cancer.*, 28(4), 2025-2031.
- Larson, E. B., and Yao, X. (2005). Clinical empathy as emotional labor in the patient-physician relationship. *JAMA*, 293, 1100-1106.
- Lathrop, D. (2017). Disenfranchised Grief and Physician Burnout. *Ann Fam Med.*, 15(4), 375-378.
- Lazányi, K., Molnár, P., Bugán, A., Kiss, C., Szántó, J., Gonda, A., Tóth, Z., Hernádi, Z., Hadijev, J., Remenyik, E., Damjanovich, L., Dinya, T., Flaskó, T., Bágyi, P., and Szluha, K. (2011). Az onkológusok érzelmei [The emotions of oncologists]. *Magy Onkol.*, 55(3), 205-6, 208-12. [in Hungarian].
- Lerner, B. H. (2008). At bedside, stay stoic or display emotions? [Online blog]. Retrieved from: <http://www.nytimes.com/2008/04/22/health/views/22essa.html>. (last access: 24 Oct 2020).
- Lyckholm, Laurie. (2001). Dealing with stress, burnout, and grief in the practice of oncology. *The Lancet Oncology.*, 2(12), 750-755.
- Marmon, L.M., and Heiss, K. (2015). Improving surgeon wellness: The second victim syndrome and quality of care. *Semin Pediatr Surg.*, 24(6), 315-318.
- Martin, E.B. Jr., Mazzola, N.M., Brandano, J., Luff, D., Zurakowski, D., and Meyer, E.C. (2015). Clinicians' recognition and management of emotions during difficult healthcare conversations. *Patient Educ Couns.*, 98(10), 1248-1254.
- Mazzocco, K., Masiero, M., Carriero, M.C., and Pravettoni, G. (2019). The role of emotions in cancer patients' decision-making. *Ecancermedicalscience.* 13, 914.
- Meier, D.E., Back, A.L., and Morrison, R.S. (2001). The inner life of physicians and care of the seriously ill. *JAMA.*, 286(23), 3007-3014.
- Meyer, R.M.L., Li, A., Klaristenfeld, J., and Gold, J.I. (2015). Pediatric novice nurses: examining compassion fatigue as a mediator between stress exposure and compassion satisfaction, burnout, and job satisfaction. *J Pediatr Nurs.*, 30, 174-183.
- Milligan, E., and Jones, J. (2016). Rethinking Autonomy and Consent in Healthcare Ethics. In: Clark P.A. (Ed.) *Bioethics - Medical, Ethical and Legal*

- Perspectives. London: Intech Open, pp: 21-38.
- Omroep Max (broadcasting). (2015, February 9). Onderzoek naar huilende artsen. In *Tijd voor MAX & Hallo Nederland* (Television show).
- Orri, M., Revah-Lévy, A., and Farges, O. (2015). Surgeons' Emotional Experience of Their Everyday Practice - A Qualitative Study. *PLoS ONE*, 10(11), e0143763.
- Panagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., Chew-Graham, C., Peters, D., Hodgkinson, A., Riley, R., and Esmail, A. (2018). Association between physician burnout and patient safety, professionalism, and patient satisfaction: a systematic review and meta-analysis. *JAMA Intern Med.*, 178, 1317.
- Plummer, M., de Martel, C., Vignat, J., Ferlay, J., Bray, F., and Franceschi, S. (2016). Global burden of cancers attributable to infections in 2012: a synthetic analysis. *Lancet Glob Heal.*, 4, e609–e616.
- Pruthi, S., and Goel, A. (2014). Doctors do cry. *Indian Journal of Medical Ethics*, 11(4), 249–251.
- Psilopanagioti, A., Anagnostopoulos, F., Mourtou, E., and Niakas, D. (2012). Emotional intelligence, emotional labor, and job satisfaction among physicians in Greece. *BMC Health Serv Res.*, 12, 463.
- Shanafelt, T., Adjei, A., and Meyskens, F.L. (2003). When your favorite patient relapses: physician grief and well-being in the practice of oncology. *J Clin Oncol.*, 21, 2616–2619.
- Sinclair, C. (2008). Crying doctors? How to be a good palliative care physician [Online blog]. Retrieved from: https://hospicevolunteerassociation.org/HVANewsletter/0140_Vol4No3_2008Apr23_HowToBeAGoodPalliativeCareDoctor.pdf (last access: 24 Oct 2020).
- Stamm, B. (2010) The concise ProQOL manual. Pocatello, ID ProQOL org 78.
- Stienen, M.N., Scholtes, F., Samuel, R., Weil, A., Weyerbrock, A., and Surbeck, W. (2018). Different but similar: personality traits of surgeons and internists—results of a cross-sectional observational study. *BMJ Open*, 8, e021310.
- Sung, A. D., Collins, M. E., Smith, A. K., Sanders, A. M., Quinn, M. A., Block, S. D., and Arnold, R. M. (2009). Crying: Experiences and attitudes of third-year medical students and interns. *Teaching and Learning in Medicine: An International Journal*, 21, 180–187.
- 't Lam, C., Vingerhoets, A. J. J. M., and Bylsma, L. M. (2018). Tears in therapy: A pilot study about experiences and perceptions of therapist and client crying. *European Journal of Psychotherapy & Counselling*, 20(2), 199–219.
- Treffers, T., Putora, P.M. (2020). Emotions as Social Information in Shared Decision-Making in Oncology. *Oncology.*, 98(6), 430-437.
- Ubel, P.A., Scherr, K.A., Fagerlin, A. (2017). Empowerment Failure: How Shortcomings in Physician Communication Unwittingly Undermine Patient Autonomy. *Am J Bioeth.* 17(11), 31-39.

Vingerhoets, A. J. J. M. (2013). *Why only humans weep. Unraveling the mysteries of tears*. Oxford: Oxford University Press.

Vingerhoets, A. J. J. M., and Bylsma, L. M. (2007). Crying and health: Popular and scientific conceptions. *Psychological Topics*, 16(2), 275–296.

Wagner, R. E., Hexel, M., Bauer, W. W., and Kropiunigg, U. (1997). Crying in hospitals: A survey of doctors', nurses' and medical students' experience and attitudes. *Zeitschrift für Medizinische Ausbildung*, 6, 13–16.

Whitehead, P.R. (2014). The lived experience of physicians dealing with patient death. *BMJ Support Palliat Care.*, 4(3), 271-276.

Wible, P. (2015). Heart-wrenching photo of a doctor crying goes viral. Here's why [Online blog]. Retrieved from <http://www.idealmedicalcare.org/blog/heart-wrenching-photo-of-physician-crying-goes-viral-heres-why/>. (last access: 24 Oct 2020).

Yuguero, O., Ramon Marsal, J., Esquerda, M., Vivanco, L., and Soler-González, J. (2017). Association between low empathy and high burnout among primary care physicians and nurses in Lleida, Spain. *Eur J Gen Pract.*, 23(1), 4-10.

Zambrano, S.C., Chur-Hansen, A., and Crawford, G.B. (2014). The experiences, coping mechanisms, and impact of death and dying on palliative medicine specialists. *Palliat Support Care.*, 12(4), 309-316.